

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-8 (Canceled).

Claim 9 (Currently Amended): An apparatus for producing microdroplets, comprising:

(a) an intersection portion at which a first continuous phase supplied from a continuous phase supply channel, a first dispersion phase supplied from a first dispersion phase supply channel, and a second dispersion phase supplied from a second dispersion phase supply channel intersect with each other;

(b) a first liquid feed device controlling the first dispersion phase;

(c) a second liquid feed device controlling the second dispersion phase; and

(d) a control device connected to the first liquid feed device and the second liquid feed device,

wherein (e) the first liquid feed device and the second liquid feed device are controlled by a signal from the control device so that microdroplets formed of the first dispersion phase and microdroplets formed of the second dispersion phase are sequentially produced.

Claim 10 (Original): The apparatus for producing microdroplets, according to Claim 9, wherein the intersection portion is a cross intersection portion.

Claim 11 (Original): The apparatus for producing microdroplets, according to Claim 9, wherein the intersection portion includes T-shaped intersection portions, the T-shaped intersection portions being located at positions shifted from each other.

Claim 12 (Original): The apparatus for producing microdroplets, according to Claim 10, wherein by the signal from the control device, microdroplets having uniform sizes and different components are alternately produced at a regular period.

Claim 13 (Original): The apparatus for producing microdroplets, according to Claim 11, wherein by the signal from the control device, microdroplets having uniform sizes and different components are alternately produced at a regular period.

Claim 14 (Previously Presented): The apparatus for producing microdroplets, according to Claim 12, wherein by the signal from the control device, the period is changeable.

Claims 15-18 (Canceled).

Claim 19 (Currently Amended): An apparatus for producing microdroplets, comprising:

(a) a microdroplet producing portion producing primary droplets and satellite droplets produced together with the primary droplets;

(b) a microdroplet supply channel supplying microdroplets from the microdroplet producing portion;

(c) an expansion portion connected to the microdroplet supply channel; and

(d) a branching portion having a satellite droplet recovery channel to recover the satellite droplets and a primary droplet recovery channel connected to a front end of the expansion portion to recover the primary droplets.

Claim 20 (Currently Amended): An apparatus for producing microdroplets, comprising:

(a) a microdroplet producing portion producing first and second primary droplets and first satellite droplets produced together with the first primary droplets and second satellite droplets produced together with the second primary droplets;

(b) a microdroplet supply channel supplying the first and second primary microdroplets and the first and second satellite microdroplets from the microdroplet producing portion;

(c) an expansion portion connected to the microdroplet supply channel; and

(d) a branching portion having a primary droplet recovery channel connected to a front end of the expansion portion to recover the first and the second primary droplets, a first satellite droplet recovery channel to recover the first satellite droplets, and a second satellite droplet recovery channel to recover the second satellite droplets.